

AMENDMENTS TO THE CLAIMS

A complete listing of all claims and their current status is presented below. In the changes made to the following claims, ~~[[deletions are double bracketed]]~~ or ~~shown with strike through~~, and additions are underlined.

Listing of Claims:

1. **(Currently Amended)** A system, for remodeling a mitral valve annulus, comprising:

a delivery catheter; and

an implant, detachably carried by the delivery catheter, the implant reversibly movable between a first flexible configuration for delivery to a site adjacent the annulus of the mitral valve and a second remodeling configuration for remodeling the mitral valve annulus, the implant including a guidewire lumen adapted to slideably engage a guidewire;

wherein the implant is positionable in a coronary sinus in the first flexible configuration, such that a proximal portion of the implant is positioned in a proximal part of the coronary sinus, and a distal portion of the implant is positioned in a distal part of the coronary sinus, wherein the proximal part is closer to the ostium of the coronary sinus than is the distal part;

wherein the delivery catheter is coupled to a proximal end of the implant,

the delivery catheter including a control mechanism for selectively adjusting a curvature of the implant in the second remodeling configuration; and

a forming member, coupled to the implant and extending longitudinally along at least a portion of the implant, the forming member being configured to remain coupled to the implant in the coronary sinus after the implant is detached from the delivery catheter;

wherein, when the implant is positioned in the coronary sinus, and the forming member is advanced distally with respect to the coronary sinus, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

2. **(Previously Presented)** A system as in claim 1, wherein the implant comprises an arc when in the remodeling configuration.

3. **(Previously Presented)** A system as in claim 2, wherein a best fit constant radius curve corresponding to the arc has a radius within a range of from about 10 mm to about 20 mm.

4-5. **(Canceled)**

6. **(Previously Presented)** A system as in claim 1, further comprising a coating on the implant.

7-11. **(Canceled)**

12. **(Previously Presented)** A system as in claim 1, wherein the forming member is flexible and has a proximal end attached to the control mechanism and a distal end attached to a distal end portion of the implant, the forming member being slidable for selectively adjusting the curvature of the implant.

13. **(Previously Presented)** A system for remodeling a mitral valve annulus, comprising:

a delivery catheter;

an implant, detachably carried by the delivery catheter, the implant reversibly movable between a first, flexible configuration for delivery to a site adjacent the annulus of the mitral valve and a second, rigid configuration for remodeling the mitral valve annulus, the implant including a guidewire lumen adapted to slideably engage a guidewire;

a control on the catheter for reversibly transforming the implant between the first flexible configuration and the second, rigid configuration;

a flexible member attached to a distal end portion of the implant; and

a rotational coupler along a proximal end portion of the implant for applying tension to the flexible member to move the implant to the second, rigid configuration.

14. **(Previously Presented)** A system as in claim 13, wherein the control comprises a thumbwheel for actuating the rotational coupler.

15. **(Previously Presented)** A system as in claim 13, wherein the implant comprises an anchor that retains the implant at a deployment site when the implant is in the rigid configuration.

16. **(Previously Presented)** A system as in claim 15, wherein the anchor comprises a distal extension of the implant.

17. **(Previously Presented)** A system as in claim 15, wherein the anchor comprises a friction-enhancing structure for engaging adjacent tissue.

18. **(Previously Presented)** A system as in claim 15, wherein the anchor comprises at least one barb for piercing a wall of a tissue adjacent the mitral valve annulus.

19. **(Previously Presented)** A system as in claim 18, wherein the barb is moveable between an axial orientation and an inclined orientation.

20. **(Previously Presented)** A system as in claim 13, wherein the guidewire lumen is in a monorail design with respect to the implant.

21. **(Previously Presented)** A system as in claim 13, wherein the flexible member is slideable for selectively adjusting a curvature of the implant in the remodeling configuration.

22. **(Previously Presented)** A system, for remodeling a mitral valve annulus, comprising:

a delivery catheter;

an implant, detachably carried by the delivery catheter, the implant reversibly movable between a first, flexible configuration for delivery to a site adjacent a mitral

valve annulus and a second, remodeling configuration for remodeling the annulus, the implant comprising a guidewire lumen adapted to slideably engage a guidewire; and
a flexible member attached to a distal portion of the implant;
wherein the delivery catheter is coupled to a proximal end of the implant; and
wherein the delivery catheter comprises a control mechanism for selectively adjusting a curvature of the implant; and
a rotational coupler along a proximal end portion of the implant that applies tension to the flexible member so as to change the implant to the second, remodeling configuration.

23. **(Previously Presented)** A system, for remodeling a mitral valve annulus, comprising:

a delivery catheter;
an implant, detachably carried by the delivery catheter, the implant reversibly movable between a first, flexible configuration for delivery to a site adjacent the annulus of the mitral valve and a second, remodeling configuration for remodeling the mitral valve annulus, the implant including a guidewire lumen adapted to slideably engage a guidewire;
a control on the catheter for reversibly transforming the implant between the first, flexible configuration and the second, remodeling configuration;
a flexible member attached to a distal end portion of the implant; and
a rotational coupler along a proximal end portion of the implant that applies tension to the flexible member so as to change the implant to the second, remodeling configuration.

24. **(Previously Presented)** The system as in claim 1, wherein, when the implant is positioned in the coronary sinus in the first flexible configuration, and the forming member is advanced distally with respect to the coronary sinus, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

25. **(Previously Presented)** The system as in claim 1, wherein, when the implant is positioned in the coronary sinus in the first flexible configuration, and the forming member is advanced distally with respect to the implant, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

26. **(Previously Presented)** The system as in claim 25, wherein, when the implant is positioned in the coronary sinus, and the forming member is retracted proximally with respect to the implant, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

27. **(Previously Presented)** The system as in claim 1, wherein the forming member is flexible.

28. **(Previously Presented)** The system as in claim 1, wherein the forming member is coupled to the control mechanism.

29. **(Previously Presented)** The system as in claim 1, wherein the forming member resides at least partially in the implant.

30. **(Previously Presented)** The system as in claim 1, wherein the forming member is slidable with respect to the implant.

31. **(Currently Amended)** A system, for remodeling a mitral valve annulus, comprising:

an implant, movable between a first configuration, for delivery to a coronary sinus, and a second configuration, for changing a shape of a mitral valve annulus;

wherein the implant is positionable in the coronary sinus in the first configuration, such that a proximal portion of the implant is positioned in a proximal part of the coronary sinus, and a distal portion of the implant is positioned in a distal part of the

coronary sinus, wherein the proximal part is closer to the ostium of the coronary sinus than is the distal part;

a control mechanism for adjusting a curvature of the implant;

a forming member, coupled to the implant and extending longitudinally along at least a portion of the implant the forming member being configured to remain coupled to the implant in the coronary sinus after the implant moves from the first configuration to the second configuration;

wherein, when the implant is positioned in the coronary sinus, and the forming member is advanced distally with respect to the coronary sinus, the curvature of the implant changes, thereby altering the shape of the mitral valve annulus.

32. **(Previously Presented)** The system as in claim 31, wherein the proximal part of the coronary sinus comprises the proximal one-third of the coronary sinus, and the distal part of the coronary sinus comprises the distal one-third of the coronary sinus.

33. **(Previously Presented)** The system as in claim 31, wherein the forming member is flexible.

34. **(Previously Presented)** The system as in claim 31, wherein the forming member coupled to the control mechanism.

35. **(Previously Presented)** The system as in claim 31, wherein the forming member resides at least partially in the implant.

36. **(Previously Presented)** The system as in claim 31, wherein the forming member is slideable with respect to the implant.

37. **(Previously Presented)** The system as in claim 31, wherein, when the implant is positioned in the coronary sinus in the first configuration, and the forming member is advanced distally with respect to the coronary sinus, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

38. **(Previously Presented)** The system as in claim 31, wherein, when the implant is positioned in the coronary sinus in the first configuration, and the forming member is advanced distally with respect to the implant, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

39. **(Previously Presented)** The system as in claim 38, wherein, when the implant is positioned in the coronary sinus, and the forming member is retracted proximally with respect to the implant, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

40. **(Previously Presented)** The system as in claim 31, wherein, when the implant is positioned in the coronary sinus, and the forming member is advanced distally with respect to the implant, a radius of the curvature of the implant increases, thereby improving coaptation of leaflets of the mitral valve.

41. **(New)** The system as in claim 22, wherein the control mechanism is on the catheter.

42. **(New)** The system as in claim 41, wherein the control comprises a thumbwheel for actuating the rotational coupler.

43. **(New)** The system as in claim 22, wherein the implant comprises an anchor that retains the implant at a deployment site when the implant is in the second, remodeling configuration.

44. **(New)** The system as in claim 43, wherein the anchor comprises a distal extension of the implant.

45. (New) The system as in claim 43, wherein the anchor comprises a friction-enhancing structure for engaging adjacent tissue.

46. (New) The system as in claim 43, wherein the anchor comprises at least one barb for piercing a wall of a tissue adjacent the mitral valve annulus.

47. (New) The system as in claim 46, wherein the at least one barb is moveable between an axial orientation and an inclined orientation.

48. (New) The system as in claim 22, wherein the guidewire lumen is in a monorail design with respect to the implant.

49. (New) The system as in claim 22, wherein the flexible member is slideable with respect to the implant for selectively adjusting a curvature of the implant in the remodeling configuration.

50. (New) The system as in claim 22, wherein the flexible member extends longitudinally along at least a portion of the implant.

51. (New) The system as in claim 22, wherein, when the implant is positioned in a coronary sinus in the first, flexible configuration, and the flexible member is advanced with respect to the coronary sinus, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

52. (New) The system as in claim 22, wherein, when the implant is positioned in a coronary sinus, and the flexible member is retracted proximally with respect to the implant, the curvature of the implant changes, thereby altering a shape of the mitral valve annulus.

53. (New) The system as in claim 22, wherein the flexible member is coupled to the control mechanism.

54. **(New)** The system as in claim 22, wherein the flexible member resides at least partially in the implant.

55. **(New)** The system as in claim 23, wherein the control comprises a thumbwheel for actuating the rotational coupler.

56. **(New)** The system as in claim 23, wherein the implant comprises an anchor that retains the implant at a deployment site when the implant is in the second, remodeling configuration.